

Application Serial No. 10/585,477
Reply to Office Action of October 18, 2010

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Docket: CU-4938

Amendments to the Claims

The listing of claims presented below replaces all prior versions, and listings, of claims in the application.

Listing of claims:

1. (currently amended) ~~A wire material used to form a coil expander used for a coil expander, the coil expander is used for a combination piston ring comprising a piston ring and the coil expander for pressing and urging the piston ring outward in the radial direction thereof,~~

wherein a cross-sectional shape of the wire material is a rectangular shape comprising two flat surfaces at the shorter sides, a convex curved surface at one longer side and a concave curved surface at another longer side, a cross-sectional shape of the coil expander formed by using the wire material is a rectangular shape with four flat surfaces,

~~a cross-sectional shape of the wire material is a rectangular shape with a convex curved surface at the longer side of the rectangular cross section, and~~

~~when the coil expander is formed by coiling the wire material, the convex curved surface of the wire material is deformed to be a flat surface constituting an outer peripheral surface of the coil expander,~~

when the coil expander is formed by coiling the wire material, the concave curved surface of the wire material is deformed to be a flat surface constituting an inner peripheral surface of the coil expander, and

when the height, in the surface of the wire material, of the convex curved surface is "a" and the height, in the surface of the wire material, of the concave curved surface is "b", $a \geq b + 0.005$ mm.

2. (previously presented) The wire material according to claim 1, wherein the height, in the surface of the wire material, of the convex curved surface is in a range of 0.03 to 0.1 mm.

3. – 4. (cancelled)

5. (previously presented) The wire material according to claim 1, wherein a radius of

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curvature of the convex curved surface edges, located at both ends in a width direction of the wire material, is smaller than the radius of curvature of the convex curved surface midportion located at the central portion in the width direction of the wire material.

6. (currently amended) The wire material according to claim 1, wherein a radius of curvature of the concave curved surface edges, located at both ends in a width direction of the wire material, is smaller than the radius of curvature of the concave curved surface midportion located at the central portion in the width direction of the wire material.

7. (previously presented) The wire material according to claim 1, wherein a cross-sectional shape of the wire material is rectangular shape with flat surfaces at the shorter sides of the rectangular cross section.

8. (previously presented) The wire material according to claim 1, wherein the coil expander formed by coiling the wire material is used for a combination oil ring.

9. (previously presented) The wire material according to claim 1, wherein the wire material is formed of a shape memory alloy.

10. (previously presented) A coil expander, wherein the wire material according to claim 1 is used to form the coil expander.

11. (cancelled)

12. (previously presented) The coil expander according to claim 10, wherein the outer peripheral surface of the coil expander is a plasticity processed surface.